Statement of Basis

for the DRAFT CAAPP Permit for:

Source Name:

R.R. Donnelley & Sons Company

Statement of Basis No.: 95090095-1405

I.D. No.: 029803AAA

Permit No.: 95090095

Date Prepared: 5/27/2014

Permitting Authority:

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
217/785-1705

This Statement of Basis is being provided to USEPA and any interested parties as required by Section 39.5(8)(b) of the Illinois Environmental Protection Act.

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PREFACE

Reason For This Document

This document is a requirement of the permitting authority in accordance with 502(a) of the Clean Air Act, 40 CFR 70.7(a)(5), and Section 39.5(8)(b) of the Illinois Environmental Protection Act. Section 39.5(8)(b) of the Illinois Environmental Protection Act states the following:

> "The Agency shall prepare a …… statement that sets forth the legal and factual basis for the Draft CAAPP permit conditions, including references to the applicable statutory or regulatory provisions."

Purpose Of This Document

The purpose of this Statement of Basis is to provide discussion regarding the development of this Draft CAAPP Permit. This document would also provide the permitting authority, the public, the source, and the USEPA with the applicability and technical matters that form the basis of the Draft CAAPP Permit.

Summary Of Historical Actions Leading Up To Today's Permitting Action

Since the last New CAAPP Permit issued on September 23, 2002, the source has also been issued the following: Minor Modifications on June 9, 2004, and June 27, 2005.

Limitations

This Statement of Basis is not enforceable and only sets forth the legal and factual basis for the Draft CAAPP Permit Conditions (Chapters I and II). Chapter III contains supplemental material that would assist in educating interested parties about this source and the Draft CAAPP Permit. The Statement of Basis does not shield the source from enforcement actions or its responsibility to comply with existing or future applicable regulations. Nor does the Statement of Basis constitute a defense to a violation of the Federal Clean Air Act or the Illinois Environmental Protection Act including implementing regulations.

This document does not purport to establish policy or guidance.

INTRODUCTION

The Clean Air Act Permit Program (CAAPP) is the operating permit program established in Illinois for major stationary sources as required by Title V of the federal Clean Air Act and Section 39.5 of the Illinois Environmental Protection Act. The Title V Permit Program (CAAPP) is the primary mechanism to apply the various air pollution control requirements established by the Clean Air Act to major sources, defined in accordance with Title V of the Clean Air Act. The Draft CAAPP Permit contains conditions identifying the state and federal applicable requirements that apply to the source. The Draft CAAPP Permit also establishes the necessary monitoring and compliance demonstrations. The source must implement this monitoring to demonstrate that the source is operating in accordance with the applicable requirements of the permit. The Draft CAAPP Permit identifies all applicable requirements for the various emission units as well as establishes detailed provisions for testing, monitoring, recordkeeping, and reporting to demonstrate compliance with the Clean Air Act. Further explanations of the specific provisions of the Draft CAAPP Permit are contained in the following Chapters of this Statement of Basis.

In addition, the Illinois EPA has committed substantial resources and effort in the development of an acceptable Statement of Basis (this document) that would meet the expectations of USEPA, Region 5. As a result, this document contains discussions that address applicability determinations, periodic monitoring, streamlining, prompt reporting, and SSM authorizations (as necessary). These discussions involve, where necessary, a brief description and justification for the resulting conditions and terms in this Draft CAAPP Permit. This document begins by discussing the legal basis for the contents of the Draft CAAPP Permit, moves into the factual description of the permit, and ends with supplemental information that has been provided to further assist with the understanding of the background and genesis of the permit content.

It is Illinois EPA's preliminary determination that this source's Permit Application meets the standards for issuance of a "Final" CAAPP Permit as stipulated in Section 39.5(10)(a) of the Illinois Environmental Protection Act (see Chapter I - Section 1.2 of this document). The Illinois EPA is therefore initiating the necessary procedural requirements to issue a Final CAAPP Permit. The Illinois EPA has posted the Draft CAAPP permit and this Statement of Basis on USEPA website:

http://www.epa.gov/reg5oair/permits/ilonline.html

CHAPTER I – LEGAL BASIS FOR THE PERMIT AND PERMIT CONDITIONS

1.1 Legal Basis for Program

The Illinois EPA's state operating permit program for major sources established to meet the requirements of 40 CFR Part 70 are found at Section 39.5 of the Illinois Environmental Protection Act [415 ILCS 5/39.5]. The program is called the Clean Air Act Permitting Program (CAAPP). The underlying statutory authority is found in the Illinois Environmental Protection Act at 415 ILCS 5/39.5. The CAAPP was given final full approval by USEPA on December 4, 2001 (see 66 FR 62946).

1.2 Legal Basis for Issuance of CAAPP Permit

In accordance with Section 39.5(10)(a) of the Illinois Environmental Protection Act, the Illinois EPA may only issue a CAAPP Permit if all of the following standards for issuance have been met:

- The applicant has submitted a complete and certified application for a permit, permit modification, or permit renewal consistent with Sections 39.5(5) and (14) of the Illinois Environmental Protection Act, as applicable, and applicable regulations (Section a. below);

- The applicant has submitted with its complete application an approvable compliance plan, including a schedule for achieving compliance, consistent with Section 39.5(5) of the Illinois Environmental Protection Act and applicable regulations (Section b. below);

- The applicant has timely paid the fees required pursuant to Section 39.5(18) of the Illinois Environmental Protection Act and applicable regulations (Section c. below); and

- The applicant has provided any additional information as requested by the Illinois EPA (Section d. below).

a. Application Status

The source submitted an application for a Renewal CAAPP Permit on 9/13/06. The source is currently operating under an application shield resultant from a timely and complete renewal application submittal. This Draft CAAPP Permit addresses application content and necessary revisions to meet the requirements for issuance of the permit.

b. Present Compliance Status

At the time of this Draft CAAPP Permit, there were no pending State or Federal enforcement actions against the source; therefore, a Compliance Schedule is not required for this source. The source submitted an approvable Compliance Plan as part of its Certified Permit Application. The source has certified compliance with all applicable rules and regulations. In addition, the draft permit requires the source to certify its compliance status on an annual basis.

c. Payment of Fees

The source is current on payment of all fees associated with operation of the emission units.

d. Additional Information

The source provided all the necessary additional application material as requested by the Illinois EPA.

1.3 Legal Basis for Conditions in the CAAPP Permit

This industrial source is subject to a variety of Federal and SIP regulations, which are the legal basis for the conditions in this permit (see Sections a. and b. below). Also, the CAAPP provides the legal basis for additional requirements such as periodic monitoring, reporting, and recordkeeping. The following list summarizes those regulations that form the legal basis for the conditions in this Draft CAAPP Permit and are provided in the permit itself as the origin and authority.

a. Applicable Federal Regulations

This source operates emission units that are subject to the following Federal regulations.

40 CFR Part 60 – Subpart A, NSPS General Provisions
40 CFR Part 60 – Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
40 CFR Part 60 – Subpart QQ, Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing
40 CFR Part 63 – Subpart A, NESHAP General Provisions
40 CFR Part 63 – Subpart N, National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks
40 CFR Part 63 – Subpart KK, National Emission Standard for the Printing and Publishing Industry
40 CFR Part 63 – Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
40 CFR Part 64 – Compliance Assurance Monitoring
40 CFR Part 82 – Subpart F, Ozone Depleting Substances

b. Applicable SIP Regulations

This source operates emission units that are subject to the following SIP regulations:

35 IAC Part 201 – Permits And General Provisions
35 IAC Part 212 – Visible And Particulate Matter Emissions
35 IAC Part 214 – Sulfur Limitations
35 IAC Part 215 – Organic Material Emission Standards And Limitations
35 IAC Part 216 – Carbon Monoxide Emissions
35 IAC Part 244 – Episodes
35 IAC Part 254 – Annual Emissions Report

c. Other Applicable Requirements

There are no other applicable requirements for this source.

CHAPTER II – FACTUAL BASIS FOR THE PERMIT AND PERMIT CONDITIONS

2.1 Source History

There is no significant source history warranting discussion for this source.

2.2 Description of Source

SIC Code: 2754
County: Coles

The source produces magazines and catalogs using heatset web offset lithographic and rotogravure printing presses. Other related process equipment located at this source includes pneumatic paper handling system, ink and solvent storage tanks, an inkjet printing operation, rotogravure maintenance related equipment, and fuel combustion devices (boilers). In addition, the source operates a Tandem Regenerative Thermal Oxidizer (RTO) system, a Carbon Absorber Solvent Recovery System, and a Composite Mesh Pad Scrubber (CMES) system for control of various pollutants.

The source contains the following processes:

Emission Units	*Description*
Heatset Web Offset Lithographic Printing Lines	The lithographic printing process is used to produce magazines, catalogs, books, newspapers, and other printed materials. The Permittee operates nine heatset web offset lithographic printing presses. These offset presses are "heatset web offset". Heatset means that the solvent in the ink is evaporated by a heated dryer, in these presses by gas-fired dryers. The word web means that the paper being printed is a long roll that from which the paper web is unwound, printed on and dried prior to being cut and folded. The dryer exhaust gases from presses are directed through a tandem thermal oxidizer air pollution control system. The oxidizer control system consists of two oxidizers in parallel. Both oxidizers are a type called a regenerative thermal oxidizer (RTO). There is one common duct system and only one of the oxidizers need be operating if the air flow from the operating press dryers does not exceed the capacity of the operating oxidizer. The entire system is computer controlled to determine whether one or two oxidizers need be operating. Emissions such as volatile organic material (VOM) and hazardous air pollutants (HAPs) may result from the use of printing-related materials such as inks, fountain solution additives, and cleaning solvents. Natural gas or propane is the fuel used in the press dryers and the tandem thermal oxidizer system. Emissions of CO, NO_x, particulate matter (PM), SO_2, and VOM may result from the combustion of this fuel.
Rotogravure Printing Presses and Storage Tanks	The facility operates seven rotogravure presses, which are used to print high quality magazines and other similar printed material. The Permittee uses a carbon adsorption system to recover the solvent it uses. The solvent is composed primarily of toluene, which is a HAP. These presses and all other emission units in this section (e.g., cylinder preparation and ink storage tanks) are part of the affected source subject to a NESHAP for publication rotogravure printing. There are a number of carbon beds in the control system but they are all considered one system. In a carbon bed system some beds

	are actively adsorbing the solvent, while others are “offline”, either idle or being regenerated by having the solvent removed from the carbon. The Permittee uses steam for regeneration. The steam and solvent are condensed together and separated (decanted) to recover the solvent for reuse. Gravure inks and solvent are stored in a tank farm consisting of 16 storage tanks ranging in size from 8,000 to 25,000 gallons.
Rotogravure Cylinder Manufacturing	The facility operates a number of pieces of equipment designed to clean the cylinders used on the rotogravure presses. Solvent cleaning operations use the same solvents as employed in the rotogravure printing. These operations are part of the affected source subject to a NESHAP for publication rotogravure printing.
Hard Chrome Plating Operation	The facility operates two hard chrome plating tanks, which are used to provide a protective/hard coating of chrome onto the surface of the engraved copper roto cylinders to reduce wear during use. The chrome plating tanks are equipped with mist control devices for the reduction of chromic acid emissions. Chromium, a hazardous air pollutant, is emitted from the cylinder chrome plating operation. The tanks are subject to the NESHAP for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.
Paper Handling System with Cyclones	The Permittee operates pneumatic paper collection systems for the collection, transport and recycling and reuse of paper trimmings. The paper trimmings are generated in the pressrooms and binderies, pneumatically conveyed to the by-products area, separated from the carrier air stream by cyclone mechanical separators, and baled for shipment to a recycler. Entrained dust in the air discharge from one of the cyclones is removed by a baghouse fabric filtration unit.
Boilers (One NSPS)	The Permittee operates boilers that utilize natural gas, propane or fuel oil to generate heat and process steam. Natural gas is the principal fuel utilized by all of the boilers. Propane is available as an alternate stand-by fuel in the event the natural gas supply is interrupted. Emissions of CO, NO_x, PM, SO_2 and VOM are the result combustion of fuels in the boilers.

2.3 Single Source Status

This source does not have any collocated facilities that would be considered a single source with this facility based on information found in the certified application.

2.4 Ambient Air Quality Status for the Area

The source is located in an area that as of the date of permit issuance designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (carbon monoxide, lead, nitrogen dioxide, ozone, $PM_{2.5}$, PM_{10}, sulfur dioxide). (See 40 CFR Part 81 – Designation of Areas for Air Quality Planning Purposes)

2.5 Source Status

The source requires a CAAPP permit because this source is considered major (based on its PTE) for the following regulated pollutants: PM, volatile organic material (VOM), and/or hazardous air pollutant (HAP)

The source also requires a CAAPP Permit because the source is subject to a standard, limitation, or other requirement under Section 111 (NSPS) or Section

112 (HAPs) of the CAA for which USEPA requires a CAAPP Permit, or because the source is in a source category designated by the USEPA.

This source is considered a natural minor for the following regulated pollutants: $PM_{2.5}$, nitrogen oxides (NO_x), carbon monoxide (CO), and sulfur dioxide (SO_2).

Based on available data, this source is not a major source of emissions for GHG. RR Donnelley & Sons voluntarily submitted data on its emissions of GHG in its 2011 AER, reporting actual annual emissions of GHG of 16,548 tons per year. The emissions consist of 16,457 tons of CO_2, 0.31 tons of N_2O, and 0.30 tons of methane.

This source is not currently subject to any "applicable requirements," as defined by Section 39.5(1) of the Act, for emissions of greenhouse gases (GHG) as defined by 40 CFR 86.1818-12(a), as referenced by 40 CFR 52.21(b)(49)(i). There are no GHG-related requirements under the Illinois Environmental Protection Act, Illinois' State Implementation Plan, or the Clean Air Act that apply to this facility, including terms or conditions in a Construction Permit addressing emissions of GHG or BACT for emissions of GHG from a major project at this facility under the PSD rules. In particular, the USEPA's Mandatory Reporting Rule for GHG emissions, 40 CFR Part 98, does not constitute an "applicable requirement" because it was adopted under the authority of Sections 114(a)(1) and 208 of the Clean Air Act. This permit also does not relieve the Permittee from the legal obligation to comply with the relevant provisions of the Mandatory Reporting Rule for this facility.

2.6 Annual Emissions

The following table lists annual emissions (tons) of criteria pollutants for this source, as reported in the Annual Emission Reports (AER) sent to the Illinois EPA:

Pollutant	*2013*	*2012*	*2011*	*2010*	*2009*
CO	12.40	11.51	11.49	12.34	9.63
NOx	14.76	12.34	13.72	16.14	11.71
PM	11.65	12.68	10.60	14.72	14.33
SO_2	0.09	0.09	0.54	0.09	0.09
VOM	677.89	460.31	399.23	643.13	546.84
CO_{2E}	17,704	14,808	16,548	17,726	14,098
HAP (top - toluene)	624.89	411.19	360.24	584.05	485.33

2.7 Fee Schedule

The following table lists the approved annual fee schedule (tons) submitted in the Source's permit application:

Pollutant		*Tons/Year*
Volatile Organic Material	(VOM)	2,062.5
Sulfur Dioxide	(SO_2)	90.4
Particulate Matter	(PM)	86.7
Nitrogen Oxides	(NO_x)	82.9
HAP, not included in VOM or PM	(HAP)	-
Total		2,322.5

2.8 SIP Permit Facts (T1 Limits)

CAAPP Permits must address all "applicable requirements," which includes the terms and conditions of preconstruction permits issued under regulations approved by USEPA in accordance with Title I of the CAA (*See* definition of applicable requirements in Section 39.5(1) of the Illinois Environmental Protection Act). Preconstruction permits, commonly referred to in Illinois as Construction Permits, derive from the New Source Review ("NSR") permit programs required by Title I of the CAA. These programs include the two major NSR permit programs: (1) the Prevention of Significant Deterioration ("PSD") program[1] and (2) the nonattainment NSR program.[2] These programs also encompass state construction permit programs for projects that are not major.

In the CAAPP or Illinois's Title V permit program, the Illinois EPA's practice is to identify requirements that are carried over from an earlier Title I permit into a New or Renewed CAAPP Permit as "TI" conditions (i.e., Title I conditions). Title I Conditions that are revised as part of their incorporation into a CAAPP Permit are further designated as "TIR." Title I Conditions that are newly established through a CAAPP Permit are designated as "TIN." It is important that Title I Conditions be identified in a CAAPP Permit because these conditions will not expire when the CAAPP Permit expires. Because the underlying authority for Title I Conditions comes from Title I of the CAA and their initial establishment in Title I Permits, the effectiveness of T1 Conditions derives from Title I of the CAA rather than being linked to Title V of the A. For "changes" to be made to Title I Conditions, they must either cease to be applicable based on obvious circumstances, e.g., the subject emission unit is permanently shut down, or appropriate Title I procedures must be followed to change the conditions.

- Previously Incorporated Construction Permits:

Permit No.	*Date Issued*	*Subject*
02020014	February 22, 2002	Rotogravure Ink Storage Tank
01100049	October 31, 2001	Replacement Copper Plating Tank
01070002	February 19, 2002	Presses, Boiler and Control System Expansion
01040001	April 17, 2001	Web Offset Press MM-715
01020021	February 28, 2001	Copper Plating Tank
99070077	December 5, 2000	Heatset Web Offset Lithographic Press and Dryer
98010038	February 6, 1998	Offset Press MM-714
97050159	July 29, 1997	Cylinder Washer
96090082	October 11, 1996	Chromic Acid Mist Pollution Control System
95020083	May 6, 1996	Mod to Pneumatic Paper Collection System

- Newly Issued Construction Permits:

Permit No.	*Date Issued*	*Subject*
03020041	March 24, 2003	Web Offset Press MM-722
03030060	July 2, 2003	Web Offset Press MM-718
03050055	July 8, 2003	Inkjet Printers
04060007	June 23, 2004	Scitex Digit Liberty 7122 Inkjet Printing System
04090076	December 17, 2004	Presses
05050083	August 8, 2005	Hard Chrome Plating Tank

- Extraneous or Obsolete T1 Conditions:[3]

Construction Permit No.	*Condition Number*	*Subject*
04090076	1.3.5 & 1.3.6(a)	Inkjet Printing Systems
04060007	1.1.5(a) & 1.1.6(a)	Scitex Digit Liberty 7122 Inkjet Printing System

CHAPTER III – SUPPLEMENTAL DISCUSSIONS REGARDING THE PERMIT

The information provided in this Chapter of the Statement of Basis is being provided to assist interested parties in understanding what additional information may have been relied on to support this draft CAAPP permit.

3.1 Environmental Justice Discussions

This location has not been identified as a potential concern for Environmental Justice consideration.

3.2 Emission Testing Results

The source has performed the following emission testing:

Emission Unit	*Date*	*Pollutant*	*Results of Run #1*	*Results of Run #2*	*Results of Run #3*	*3-Run Average*	*Compliance Margin %*
Hard Chrome Plating Tanks #2 & #3 with Composite Mesh Pad Scrubber (CMES) with HEPA Filter Control System	April 7, 2006	HAP (Chromium)	0.00293 mg/dscf	0.00452 mg/dscf	0.00385 mg/dscf	0.00377 mg/dscf	74.9%
Gravure Presses (specifically,MR-735) with Carbon Bed Absorber Solvent Recovery System Control System	March 15-April 14, 2006	VOM	95.2% Recovery	N/A, this was a month long solvent recovery test.			11.2%
Gravure Presses (specifically,MR-736) with Carbon Bed Absorber Solvent Recovery System Control System	August, 2002	VOM	96.1% Recovery	N/A, this was a month long solvent recovery test.			12.1%
Lithographic Presses with RTO Control System	May 21, 2002	VOM	99.6% DE	99.6% DE	99.7% DE	99.6% DE	2.6%
Lithographic Presses with RTO Control System	May 28, 1997	VOM	99.88% DE	98.99% DE	99.22% DE	99.36% DE	2.4%

Note: The testing procedures completed during August 2002 and March 15-April 14, 2006 were performed on the entire solvent recovery system using mass balance calculations. This solvent recovery system controls solvent laden air from the gravure press exhaust systems, as well as other activities associated with the gravure process.

3.3 Compliance Reports (Annual Certifications, Semiannual Monitoring, NESHAP, etc.)

A review of the source's compliance reports demonstrates the sources ability to comply with all applicable requirements.

3.4 Field Inspection Results

A review of the source's latest field inspection report dated May 6, 2010 demonstrates the source's ability to comply with all applicable requirements.

3.5 Historical Non-Compliance

There is no historical non-compliance for this source.

3.6 Source Wide Justifications and Rationale

Applicable Requirements Summary		
Applicable Requirement	Type	Location
Fugitive Particulate Matter (35 IAC 212.301 and 35 IAC 212.314)	Applicable Standard	See the Permit, Condition 3.1(a)

Rationale/Justification for Periodic Monitoring of Particulate Matter Emission

Periodic Monitoring is sufficient for this source because:

- •The source is not involved in classical extensive "material handling activities"; therefore, there is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Emissions are considered negligible.

Non-Applicability Discussion

Complex source-wide non-applicability determinations were not made for this source.

Prompt Reporting Discussion

Prompt reporting of deviations for source wide emission units has been established as 30 days. See rationale in Chapter III Section 3.9.

3.7 Emission Unit Justifications and Rationale

a. Heatset, Web Offset Lithographic Printing Lines		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123)	Applicable Standard	See the Permit, Condition 4.1.2(a)
PM Requirement (35 IAC 212.321)	Applicable Standard	See the Permit, Condition 4.1.2(b)
SO_2 Requirement (35 IAC 214.301)	Applicable Standard	See the Permit, Condition 4.1.2(c)
VOM Requirement (T1)	Applicable Limits	See the Permit, Condition 4.1.2(d)
Operational and Production Requirement	Applicable Work Practices	See the Permit, Condition 4.1.2(e)
Work Practice Requirement	Applicable Work Practices	See the Permit, Condition 4.1.2(f)

Rationale/Justification for Periodic Monitoring of Visible Emissions (i.e., Opacity) – 35 IAC 212.123

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Annual observations of opacity, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for the Lithographic Printing Presses. The likelihood of an opacity violation from the printing operation is small.
- Annual observations of opacity, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for the dryers. The likelihood of a violation is small because natural gas is used as the fuel source for the dryers.

Rationale/Justification for Periodic Monitoring of Particulate Matter Emission – 35 IAC 212.321

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The inspections required under the Work Practice requirements ensure that the presses are in proper working condition. If the presses are properly maintained and operated, PM emissions would be minimal.
- The recordkeeping above will allow for a calculation to be made that will demonstrate compliance with the applicable standards set forth by the process weight rate rules for the presses.

Rationale/Justification for Periodic Monitoring of Sulfur Emissions – 35 IAC 214.301

Periodic Monitoring is sufficient for the ovens because:

- The source has a substantial margin of compliance.
- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- By definition in 40 CFR 72.2, "pipeline quality" natural gas contains a sulfur content of The sulfur content limitation would result in SO_2 emission less than the limit 2,000 ppm because the properties associated with this combustion process means the sulfur level discharged will not exceed sulfur level input to the dryers. It should also be noted that the source is also required to maintain the type of fuel used, maintain inspection records, and maintain maintenance and repair logs of the dryers. These records would help the Illinois EPA determine if the dryers are being operated properly and therefore would result in SO_2 being minimized.

Rationale/Justification for Periodic Monitoring of Organic Material Emission - T1 Limits

Periodic Monitoring is sufficient for these emission units because:

- Presumed as the source is subject to CAM.
- The source has demonstrated a margin of compliance with control via testing that was performed on May 21, 2002, and May 28, 1997. The RTO system demonstrated very high destruction efficiency. The most stringent limits were based on a 97% destruction efficiency and the testing proved that the system was capable of achieving 99.4% destruction efficiency or higher.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Records of the types of materials used, the VOM content of the materials, the hours of operation of each presses, and the VOM emissions from each press with supporting calculations along with the previously performed testing and the CAM Plan for the source are sufficient to demonstrate compliance with the applicable limits.

Rationale/Justification for Periodic Monitoring of Operational and Production Requirements

Periodic Monitoring is sufficient for these emission units because:

- For the requirement to achieve at least a 97% destruction efficiency and the requirement for the minimum RTO temperature, compliance can be presumed as the source is subject to CAM.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Testing is required to be performed on the RTO system to demonstrate that the system is achieving at least the minimum DE every three years and the source is required to maintain records of these test results.
- The source must maintain records of the operating temperature, which is achieved by continuous temperature monitor.
- Records to show the type of fuel fired is sufficient to verify that pipeline quality natural gas in being used as the primary fuel source.

Rationale/Justification for Periodic Monitoring of Work Practice Requirements

Periodic Monitoring is sufficient for these emission units because:

- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Weekly inspections, accompanied by records of these inspections, of the equipment and associated auxiliary equipment are sufficient to verify that the equipment is in proper working condition, which would minimize overall emissions from the source.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

b. Rotogravure Printing Presses and Storage Tanks		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123)	Applicable Standard	See the Permit, Condition 4.2.2(a)
PM Requirement (35 IAC 212.321)	Applicable Standard	See the Permit, Condition 4.2.2(b)
VOM Requirement (40 CFR 60.432)	Applicable Standard	See the Permit, Condition 4.2.2(d)
VOM Requirement (35 IAC 215.122)	Applicable Standard	See the Permit, Condition 4.2.2(d)
VOM Requirement (T1)	Applicable Limit	See the Permit, Condition 4.2.2(d)
HAP Requirement (40 CFR 63.824)	Applicable Standard	See the Permit, Condition 4.2.2(e)
Operational and Production Requirements	Applicable Work Practices	See the Permit, Condition 4.2.2(f)
Work Practice Requirement (40 CFR 63.823)	Applicable Work Practice	See the Permit, Condition 4.2.2(g)

Rationale/Justification for Periodic Monitoring of Visible Emissions (i.e., Opacity)

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Annual observations of opacity, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for the Rotogravure Printing Presses. The likelihood of an opacity violation from the printing operation is small.
- Observations of opacity at least every three years, including records of these observations, are sufficient to verify compliance with the 30% opacity limit.
- The printing operations on the gravure presses use a toluene-based ink solvent that is collected for control and recovery in the solvent recovery system. The exhaust stacks from the solvent recovery system are therefore the only point sources of emission from the process. Given that the low concentrations of solvent vapors not captured for recovery or in the exhaust stream from the solvent recovery system will be colorless, the opacity limit in Condition 4.2.2(a)(i), although an applicable standard, will be achieved by the very nature of operations. Therefore, the monitoring and recordkeeping provisions for opacity are sufficient.

Rationale/Justification for Periodic Monitoring of Particulate Matter Emission

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

- The inspections required under the Operational and Production requirements ensure that the presses are in proper working condition. If the presses are properly maintained and operated, PM emissions would be minimal.
- The recordkeeping above will allow for a calculation to be made that will demonstrate compliance with the applicable standards set forth by the process weight rate rules for the presses.
- The printing operations on the gravure presses use a toluene-based solvent that is collected for control and recovery in the solvent recovery system. The exhaust stacks from the solvent recovery system are therefore the only point sources of emissions from the process. As a result, no particulate matter emissions are anticipated in the exhaust stream from the solvent recovery system. The particulate matter limits in Condition 4.2.2(b)(i), although an applicable standard, will be achieved by the very nature of operations. Therefore, the monitoring and recordkeeping provisions for particulate matter emissions are sufficient.

Rationale/Justification for Periodic Monitoring of Organic Material Emission – 40 CFR 60.432

Periodic Monitoring is sufficient for these emission units because:
- Presumed by rule as the source is subject to a standard promulgated after Nov. 1990. NSPS QQ has been revisited several times. The most recent of which occurred in 2004 and revised the "Test methods and procedures" section of the regulation.
- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The source has demonstrated a margin of compliance with control via testing that was performed in March-April, 2006, and August, 2002. These test demonstrated recovery of 95.2% and 96.1%, respectively.

Rationale/Justification for Periodic Monitoring of Organic Material Emission – 35 IAC 215.122

Periodic Monitoring is sufficient for the Gravure Tanks because:
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Emissions are considered negligible
- Annual inspections of the tanks to ensure the presence of a submerged loading pipe accompanied by records of these inspections are adequate to demonstrate compliance with this standard.

Rationale/Justification for Periodic Monitoring of Organic Material Emission – T1

Periodic Monitoring is sufficient for these emission units because:
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- As these units are regulated by NESHAP KK VOM emissions are minimized. Records of the VOM emissions from these units along with the supporting

calculations are sufficient to demonstrate compliance with the applicable limitations.

Rationale/Justification for Periodic Monitoring of HAP Emissions

Periodic Monitoring is sufficient for these emission units because:

- Presumed by rule as the source is subject to a standard promulgated after Nov. 1990.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The monitoring/testing and recordkeeping in NESHAP KK (a post-1990 NESHAP) are presumptively adequate to verify compliance with the applicable standard.

Rationale/Justification for Periodic Monitoring of Operational and Production Requirements

Periodic Monitoring is sufficient for these emission units because:

- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- To ensure compliance with the PTE and solvent recovery removal efficiency requirements, monitoring of the PTE's and any associated ventilation systems is required. Records of these inspections of the PTE's are also required. The source is also required to maintain records which demonstrate that at minimum removal efficiency is maintained.

Non-Applicability Discussion

Complex non-applicability determinations were not made for these emission units.

Startup/Shutdown/Malfunction-Breakdown Discussion

The source is required to maintain a SSM Plan for the Rotogravure Presses, see Chapter III Section 3.10.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

c. Rotogravure Cylinder Manufacturing		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123)	Applicable Standard	See the Permit, Condition 4.3.2(a)
PM Requirement (35 IAC 212.321)	Applicable Standard	See the Permit, Condition 4.3.2(b)
VOM Requirements (35 IAC 215.301/302)	Applicable Standards	See the Permit, Condition 4.3.2(c)
HAP Requirement (40 CFR 63, Subpart KK)	Applicable Standard	See the Permit, Condition 4.3.2(d)
Operational and Production Requirements	Applicable Work Practices	See the Permit, Condition 4.3.2(e)

Rationale/Justification for Periodic Monitoring of Visible Emissions (i.e., Opacity)

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Observations of opacity at least every three years, including records of these observations, are sufficient to verify compliance with the 30% opacity limit.
- Material usage in the Cylinder Manufacturing Area is restricted to organic solvents and non-volatile inorganic compounds, generating no visible emissions. The opacity limit in Condition 4.3.2(a)(i), although an applicable standard, will be achieved by the very nature of operations.

Rationale/Justification for Periodic Monitoring of Particulate Matter Emission

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The recordkeeping above will allow for a calculation to be made that will demonstrate compliance with the applicable standards set forth by the process weight rate rules.
- The operations in the Cylinder Manufacturing Area utilizes organic solvents and non-volatile inorganic compounds, generating no particulate matter emissions. The particulate matter limit in Condition 4.3.2(b)(i), although an applicable standard, will be achieved by the very nature of operations.

Rationale/Justification for Periodic Monitoring of Organic Material Emission - 35 IAC 215.301/302

Periodic Monitoring is sufficient for the Gravure Tanks because:

- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- For compliance with 35 IAC 215.301, with the required records, a calculation can be made to ensure compliance with the applicable VOM limit for the

presses. Knowing the usage of each material used on the press combined with the VOM content of each material used on the press, VOM emissions as a result of each press can be found. Usage x VOM content = VOM emissions; with a conservative approach, it can be assumed that all VOM applied is directly emitted therefore ensuring the source is in compliance with the limits. Then, knowing the hours of operation of each press, the VOM emissions can be divided by hours of operation to give VOM emissions (lb or ton) per hour of operation --giving (lb/hr). It should also be noted that the VOM content requirements to test and monitor the VOM content of the fountain solutions and cleaning materials can be used to help verify compliance with this applicable standard.

- For the Cylinder Washer, compliance with 35 IAC 215.302 can be based on the compliance method for 40 CFR 63 Subpart KK. Subpart KK requires at least 92 percent control of HAP. All HAP that is controlled is in the form of VOM emissions. The Cylinder Washer is controlled by the same carbon adsorption system as the roto printing lines. Therefore, compliance with the calculated value (R_e) in Section 4.2 of the Permit, as explained by Subpart KK will demonstrate compliance with requirement of 85 percent control required by 35 IAC 215.302.

Rationale/Justification for Periodic Monitoring of HAP Emissions

See rationale for periodic monitoring for 4.2 (Section 3.7(b) of this SOB), as compliance with 40 CFR 63 Subpart KK is addressed there.

Rationale/Justification for Periodic Monitoring of Operational and Production Requirements

Periodic Monitoring is sufficient for these emission units because:

- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Compliance with the “cold cleaning degreaser” regulations are ensured though the inspections of the degreasers accompanied by records of these inspections, which specifically note how compliance was demonstrated with each applicable regulation or 35 IAC 215.182.
- These required records and monitoring for the PTE’s and the degreasers is sufficient to demonstrate compliance with the applicable standards, regulations, and limitations.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

d. Hard Chrome Plating Operation		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123)	Applicable Standard	See the Permit, Condition 4.4.2(a)
PM Requirement (35 IAC 212.321)	Applicable Standard	See the Permit, Condition 4.4.2(b)
HAP Requirement (40 CFR 63, Subpart N)	Applicable Standard	See the Permit, Condition 4.4.2(c)
Operational and Production Requirements	Applicable Work Practices	See the Permit, Condition 4.4.2(d)

Rationale/Justification for Periodic Monitoring of Visible Emissions (i.e., Opacity)

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Three year observations of opacity, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for the Hard Chrome Plating Tanks. The likelihood of an opacity violation from this operation is small.
- The opacity limit in Condition 4.4.2(a)(i), although an applicable standard, will be achieved by the very nature of operations.

Rationale/Justification for Periodic Monitoring of Particulate Matter Emission

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The inspections required under the Operational and Production requirements ensure that the hard chrome plating tanks are in proper working condition. If the hard chrome plating tanks are properly maintained and operated, PM emissions would be minimal.
- The recordkeeping above will allow for a calculation to be made that will demonstrate compliance with the applicable standards set forth by the process weight rate rules for the hard chrome plating tanks.
- The particulate matter limit in Condition 4.4.2(b)(i), although an applicable standard, will be achieved by the very nature of operations.

Rationale/Justification for Periodic Monitoring of HAP Emissions

Periodic Monitoring is sufficient for these emission units because:

- Presumed by rule as the source is subject to a standard promulgated after Nov. 1990. The monitoring and recordkeeping requirements for these emission units are specifically identified in the NESHAP.
- The source has a wide margin of compliance. As was demonstrated by the emission testing performed on April 7, 2006. The source showed a compliance

margin of nearly 75% for the applicable emission limitation in Condition 4.3.2(d)(i)(A)(I) of the permit.

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

e. Paper Handling System		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123)	Applicable Standard	See the Permit, Condition 4.5.2(a)
PM Requirement (35 IAC 212.321)	Applicable Standard	See the Permit, Condition 4.5.2(b)
PM Requirement (T1)	Applicable Limit	See the Permit, Condition 4.5.2(b)
Work Practice Requirement	Applicable Work Practice	See the Permit, Condition 4.5.2(c)

Rationale/Justification for Periodic Monitoring of Visible Emissions (i.e., Opacity)

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Daily observations of opacity for C-3, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for the Paper Collection System C-3. The likelihood of an opacity violation from this emission unit, which is controlled by a baghouse, is small.
- Annual observations of opacity for C-1, C-5, C-7, and C-8, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for these Paper Collection Systems. The likelihood of an opacity violation from these emission units is small.

Rationale/Justification for Periodic Monitoring of Particulate Matter Emission (35 IAC 212.321)

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The inspections required under the Work Practice requirements ensure that the paper handling system is in proper working condition. If the paper handling system is properly maintained and operated, PM emissions would be minimal.
- The recordkeeping above will allow for a calculation to be made that will demonstrate compliance with the applicable standards set forth by the process weight rate rules for the paper handling system.

Rationale/Justification for Periodic Monitoring of Particulate Matter Emission (T1)

Periodic Monitoring is sufficient for these emission units because:

- For PM emissions as a result of C-3, compliance is presumed as the source is subject to CAM.

- There is a small likelihood of an exceedance. As these limits are generally set based on PTE from the units. The actual operational hours for these units are generally much less than the allowable hours of operation.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Records to demonstrating the hours/month and hours/year each collection system operated accompanied by the quantity of paper which was conveyed through each system are sufficient to demonstrate compliance with the applicable limits. The source is also required to maintain records with supporting calculations of the PM emissions from each collection system.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

f. NSPS Boiler		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirements (40 CFR 60.43c & 35 IAC 212.123)	Applicable Standards	See the Permit, Condition 4.6.2(a)
PM Requirement (35 IAC 212.206)	Applicable Standard	See the Permit, Condition 4.6.2(b)
SO_2 Requirement (40 CFR Part 60, Subpart Dc)	Applicable Standards	See the Permit, Condition 4.6.2(c)
SO_2 Requirement (35 IAC 214.122)	Applicable Standard	See the Permit, Condition 4.6.2(c)
CO Requirement (35 IAC 216.121)	Applicable Standard	See the Permit, Condition 4.6.2(d)
Operational and Production Requirements (T1)	Applicable Limits and Work Practices	See the Permit, Condition 4.6.2(e)
Work Practice Requirement (40 CFR Part 60, Subpart Dc & 40 CFR Part 63, Subpart DDDDD)	Applicable Standards	See the Permit, Condition 4.6.2(f)
CO, NO_x, VOM, and SO_2 Requirements (T1)	Applicable Limits	See the Permit, Condition 4.6.4(a)

Rationale/Justification for Periodic Monitoring of Visible Emissions (i.e., Opacity)

Periodic Monitoring is sufficient for this emission unit because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- For 35 IAC 212.123, the compliance procedures established under the 40 CFR 60, Subpart Dc, are sufficient to demonstrate compliance with this regulation. The observations of opacity, which include Method 9 and/or Method 22, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for the boiler. The likelihood of an opacity violation from the boiler during the firing of natural gas is small.
- For 40 CFR 60.43c(c), the observations of opacity required by this permit, which include Method 9 and/or Method 22, including records of these observations, are sufficient to verify compliance with the 20% opacity limit for the boiler. The likelihood of an opacity violation from the boiler during the firing of natural gas is small.

Rationale/Justification for Periodic Monitoring of Particulate Matter Emission

Periodic Monitoring is sufficient for this emission unit because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The calculation of the PM emissions from the boiler, the demonstration of proper maintenance and repair of the boilers to ensure proper combustion, and the required annual tune-ups required by NESHAP DDDDD are sufficient to demonstrate compliance with the applicable PM standard. In general,

increased PM emissions result from poor air/fuel mixing or maintenance problems. The tune-ups will ensure that proper combustion and mixing occur during the firing of this boiler, and therefore minimize the overall PM emissions from the boiler.

Rationale/Justification for Periodic Monitoring of Sulfur Emissions (40 CFR 60, Subpart Dc)

Periodic Monitoring is sufficient for this emission unit because:

- Presumed by rule as the source is subject to a standard promulgated after Nov. 1990.
- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Rationale/Justification for Periodic Monitoring of Sulfur Emissions (35 IAC 214.206)

Periodic Monitoring is sufficient for this emission unit because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Operational and Production Requirements established also demonstrates compliance with the applicable SO_2 regulation by allowing for only the firing of #2 fuel oil.
- The records require that the maximum sulfur content of each shipment of fuel oil received is kept. If the sulfur content of the fuel oil received is less that 2,000 ppm, it can be assumed that compliance is achieved. Generally, the properties associated with this combustion process means sulfur level discharged will not exceed the sulfur level input to the boiler.

Rationale/Justification for Periodic Monitoring of Carbon Monoxide Emissions

Periodic Monitoring is sufficient for this emission unit because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The requirements of 40 CFR 63, Subpart DDDDD, which covers this boiler requires that annual tune-ups be performed to ensure proper combustion. Improperly tuned equipment operating at off-design-levels decrease combustion efficiency resulting in increased CO emissions. Therefore, the likelihood of a violation of the CO standards/limits is unlikely given that this boiler will undergo proper tuning annually, pipeline quality natural gas has a reliable carbon to hydrogen composition (> 75% methane), stable distribution and firing system and since the standards/limits are typically based on worst-case operating conditions. The periodic monitoring chosen is one in which combustion practices that promote time, temperature and

turbulence (3T's of combustion) have been incorporated so as to ensure the equipment performs at near design levels. Since these emissions are dependent on the operability of the equipment to perform, an additional inspection requirement is included to maintain and demonstrate equipment performance. The proposed periodic monitoring is sufficient for these emission units because there is a small likelihood of an exceedance based on the inherent nature of natural gas, the margin of compliance routinely observed from emission tests on similar units, and the monitoring is consistent with other similar emission units in these source categories.

Rationale/Justification for Periodic Monitoring of T1's (Condition 4.6.4(a))

Periodic Monitoring is sufficient for this emission unit because:

- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Compliance with these limits established via construction permit can be assured by records of the emissions in terms of the applicable limits and supporting calculations to verify that these limits are not exceeded. Noting that these limits are based on PTE from this boiler and noting that historically emissions from this boiler do not even approach these established limits.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

g. Other Boilers		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123)	Applicable Standard	See the Permit, Condition 4.7.2(a)
PM Requirement (35 IAC 212.206)	Applicable Standard	See the Permit, Condition 4.7.2(b)
SO_2 Requirement (35 IAC 214.122)	Applicable Standard	See the Permit, Condition 4.7.2(c)
CO Requirement (35 IAC 216.121)	Applicable Standard	See the Permit, Condition 4.7.2(d)
Operation and Production Requirements (T1)	Applicable Work Practices	See the Permit, Condition 4.7.2(e)
Work Practice Requirement (40 CFR Part 63, Subpart DDDDD)	Applicable Standard	See the Permit, Condition 4.7.2(f)

Rationale/Justification for Periodic Monitoring of Visible Emissions (i.e., Opacity)

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Annual observations of opacity, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for the boilers. The likelihood of a violation is small because natural gas is used as the primary fuel source for the boilers.

Rationale/Justification for Periodic Monitoring of Particulate Matter Emission

Periodic Monitoring is sufficient for this emission unit because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The calculation of the PM emissions from the boilers, the demonstration of proper maintenance and repair of the boilers to ensure proper combustion, and the required annual tune-ups required by NESHAP DDDDD are sufficient to demonstrate compliance with the applicable PM standard. In general, increased PM emissions result from poor air/fuel mixing or maintenance problems. The tune-ups will ensure that proper combustion and mixing occur during the firing of these boilers, and therefore minimize the overall PM emissions from the boilers.

Rationale/Justification for Periodic Monitoring of Sulfur Emissions

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

- Operational and Production Requirements established in Condition 4.7.2(e)(i)(C) also demonstrates compliance with the applicable SO_2 regulation by allowing for only the firing of #2 fuel oil.
- The records require that the maximum sulfur content of each shipment of fuel oil received is kept. If the sulfur content of the fuel oil received is less that 2,000 ppm, it can be assumed that compliance is achieved. Generally, the properties associated with this combustion process means sulfur level discharged will not exceed the sulfur level input to the boilers.

Rationale/Justification for Periodic Monitoring of Carbon Monoxide Emissions

Periodic Monitoring is sufficient for this emission unit because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The requirements of 40 CFR 63, Subpart DDDDD, which covers these boiler requires that annual tune-ups be performed to ensure proper combustion. Improperly tuned equipment operating at off-design-levels decrease combustion efficiency resulting in increased CO emissions. Therefore, the likelihood of a violation of the CO standards/limits is unlikely given that these boilers will undergo proper tuning annually, pipeline quality natural gas has a reliable carbon to hydrogen composition (> 75% methane), stable distribution and firing system and since the standards/limits are typically based on worst-case operating conditions. The periodic monitoring chosen is one in which combustion practices that promote time, temperature and turbulence (3T's of combustion) have been incorporated so as to ensure the equipment performs at near design levels. Since these emissions are dependent on the operability of the equipment to perform, an additional inspection requirement is included to maintain and demonstrate equipment performance. The proposed periodic monitoring is sufficient for these emission units because there is a small likelihood of an exceedance based on the inherent nature of natural gas, the margin of compliance routinely observed from emission tests on similar units, and the monitoring is consistent with other similar emission units in these source categories.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

3.8 Insignificant Activities Discussion

Applicable Requirements Summary		
Applicable Requirement	Type	Location
NESHAP Requirement (40 CFR 63 Subpart ZZZZ)	Applicable Standard	See the Permit, Condition 6.1(a)(i)

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- Presumed by rule as the source is subject to a standard promulgated after Nov. 1990.
- There is a small likelihood of an exceedance.
- Monitoring is consistent with other sources in this source category.

3.9 Prompt Reporting Discussion

Among other terms and conditions, CAAPP Permits contain reporting obligations to assure compliance with applicable requirements. These reporting obligations are generally four-fold. More specifically, each CAAPP Permit sets forth any reporting requirements specified by state or federal law or regulation, requires prompt reports of deviations from applicable requirements, requires reports of deviations from required monitoring and requires a report certifying the status of compliance with terms and conditions of the CAAPP Permit over the calendar year.

The number and frequency of reporting obligations in any CAAPP Permit is source-specific. That is, the reporting obligations are directly related to factors, including the number and type of emission units and applicable requirements, the complexity of the source and the compliance status. This four-fold approach to reporting is common to virtually all CAAPP Permits as described below. Moreover, this is the approach established in the Draft CAAPP Permit for this source.

Regulatory Reports

Many state and federal environmental regulations establish reporting obligations. These obligations vary from rule-to-rule and thus from CAAPP source to CAAPP source and from CAAPP Permit to CAAPP Permit. The variation is found in the report triggering events, reporting period, reporting frequency and reporting content. Regardless, the CAAPP makes clear that all reports established under applicable regulations shall be carried forward into the CAAPP Permit as stated in Section 39.5(7)(b) of the Illinois Environmental Protection Act. Generally, where sufficiently detailed to meet the exacting standards of the CAAPP, the regulatory reporting requirements are simply restated in the CAAPP Permit. Depending on the regulatory obligations, these regulatory reports may also constitute a deviation report as described below.

The Draft CAAPP Permit for this source would embody all regulatory reporting as promulgated under federal and state regulations under the Clean Air Act and the Illinois Environmental Protection Act. Depending on the frequency of the report, the regulatory report may also satisfy the prompt reporting obligations discussed below. These reports must be certified by a responsible official.

These reports are generally found in the reporting sections for each emission unit group. The various regulatory reporting requirements are summarized in the table at the end of this Reporting Section.

Deviation Reports (Prompt Reporting)

Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act mandates that each CAAPP Permit require prompt reporting of deviations from the permit requirements.

Neither the CAAPP nor the federal rules upon which the CAAPP is based and was approved by USEPA define the term "prompt". Rather, 40 CFR Part 70.6(a)(3)(iii)(B) intended that the term have flexibility in application. The USEPA has acknowledged for purposes of administrative efficiency and clarity that the permitting authority (in this case, Illinois EPA) has the discretion to define "prompt" in relation to the degree and type of deviation likely to occur at a particular source. The Illinois EPA follows this approach and defines prompt reporting on a permit-by-permit basis. In instances where the underlying applicable requirement contains "prompt" reporting, the Illinois EPA typically incorporates the pre-established timeframe in the CAAPP permit (e.g. a NESHAP or NSPS deviation report). Where the underlying applicable requirement fails to explicitly set forth the timeframe for reporting deviations, the Illinois EPA generally uses a timeframe of 30 days to define prompt reporting of deviations.

This approach to prompt reporting of deviations as discussed herein is consistent with the requirements of Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act as well as 40 CFR Part 70 and the CAA. The reporting arrangement is designed so that the source will appropriately notify the Illinois EPA of those events that might warrant attention. The timing for these event-specific notifications is necessary and appropriate as it gives the source enough time to conduct a thorough investigation into the causes of an event, collecting any necessary data, and developing preventive measures, to reduce the likelihood of similar events, all of which must be addressed in the notification for the deviation, while at the same time affording regulatory authority and the public timely and relevant information. The approach also affords the Illinois EPA and USEPA an opportunity to direct investigation and follow-up activities, and to make compliance and enforcement decisions in a timely fashion.

The Draft CAAPP Permit for this source would require prompt reporting as required by the Illinois Environmental Protection Act in the fashion described in this subsection. In addition, pursuant to Section 39.5(7)(f)(i) of the Illinois Environmental Protection Act, this Draft CAAPP Permit would also require the source to provide a summary of all deviations with the Semi-Annual Monitoring Report. These reports must be certified by a responsible official, and are generally found in the reporting sections for each emission unit group.

Semi-Annual Monitoring Reports

Section 39.5(7)(f)(i) of the Illinois Environmental Protection Act mandates that each CAAPP Permit require a report relative to monitoring obligations as set forth in the permit. Depending upon the monitoring obligation at issue, the semi-annual monitoring report may also constitute a deviation report as previously discussed. This monitoring at issue includes instrumental and non-instrumental emissions monitoring, emissions analyses, and emissions testing established by state or federal laws or regulations or as established in the CAAPP Permit. This monitoring also includes recordkeeping. Each deviation from each monitoring requirement must be identified in the relevant semi-annual report. These reports provide a timely opportunity to assess for compliance

patterns of concern. The semi-annual reports shall be submitted regardless of any deviation events. Reporting periods for semi-annual monitoring reports are January 1 through June 30 and July 1 through December 31 of each calendar year. Each semi-annual report is due within 30 days after the close of reporting period. The reports shall be certified by a responsible official. The Draft CAAPP Permit for this source would require such reports at Condition 3.5(b).

Annual Compliance Certifications

Section 39.5(7)(p)(v) of the Illinois Environmental Protection Act mandates that each CAAPP Permit require a source to submit a certification of its compliance status with each term and condition of its CAAPP Permit. The reports afford a broad assessment of a CAAPP sources compliance status. The CAAPP requires that this report be submitted, regardless of compliance status, on an annual basis. Each CAAPP Permit requires this annual certification be submitted by May 1 of the year immediately following the calendar year reporting period. The report shall be certified by a responsible official. The Daft CAAPP Permit for this source would require such a report at Condition 2.6(a).

Prompt reporting of deviations is critical in order to have timely notice of deviations and the opportunity to respond, if necessary. The effectiveness of the permit depends upon, among other important elements, timely and accurate reporting. The Illinois EPA, USEPA, and the public rely on timely and accurate reports submitted by the source to measure compliance and to direct investigation and follow-up activities. Prompt reporting is evidence of the source's good faith in disclosing deviations and describing the steps taken to return to compliance and prevent similar incidents.

Any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in this Draft CAAPP Permit is a deviation subject to prompt reporting. Additionally, any failure to comply with any permit term or condition is a deviation of that permit term or condition and must be reported to the Illinois EPA as a permit deviation. The deviation may or may not be a violation of an emission limitation or standard. A permit deviation can exist even though other indicators of compliance suggest that no emissions violation or exceedance has occurred. Reporting permit deviations does not necessarily result in enforcement action. The Illinois EPA has the discretion to take enforcement action for permit deviations that may or may not constitute a deviation from an emission limitation or standard or the like, as necessary and appropriate.

As a result, the Illinois EPA's approach to prompt reporting of deviations as discussed herein is consistent with the requirements of Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act as well as 40 CFR Part 70 and the CAA. This reporting arrangement is designed so that the source will appropriately notify the Illinois EPA of those events that might warrant individual attention.

3.**10 Start-up/Shutdown/Malfunction Breakdown Discussion**

- **Federal Start-up/Shutdown/Malfunction-Breakdown Authorization Discussion**

As originally adopted, the General Provisions of the NESHAP, 40 CFR Part 63 Subpart A (40 CFR 63.6(f) and (h)) provided that the limits of the NESHAP generally did not apply during startup, shutdown and malfunction (SSM) events (the "SSM Exemption") unless otherwise provided in a particular subpart for a

particular category of source or emissions unit.[4] However, in December 2008, a US Court of Appeals decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), vacated this SSM Exemption.[5]

On July 22, 2009, Adam Kushner, Director of the Office of Civil Enforcement of the USEPA issued guidance identifying the categories of sources that would no longer be exempt from applicable numerical NESHAP standards during startup, shutdown, and malfunction as a result of the vacatur of the SSM exemption (the SSM Vacatur). This guidance states that the SSM vacatur immediately affects only the NESHAP standards for source categories that both (i) incorporate the SSM Exemption by reference and (ii) contain no other regulatory text that provides an exemption or exception from otherwise applicable limits during startup, shutdown or malfunction events. The NESHAP standards for many source categories contain such separate category-specific exemption language for startup, shutdown and malfunction events. These provisions were not at issue in the *Sierra Club* case and decision, and accordingly those separate provisions would not be affected by the vacatur of the SSM Exemption in 40 CFR 63 Subpart A. The guidance identifies the NESHAP standards for various categories of sources that would be affected by the SSM vacatur and the standards for other categories of sources that would not be affected ("Table 1" and "Table 2," respectively, of the guidance).[6]

3.11 Greenhouse Gas Provisions

On June 3, 2010, USEPA adopted rules for the initial permitting of major sources of emissions of greenhouse gases (GHG). *See*, 75 FR 31514-31608. Prompted by the earlier adoption of GHG emissions standards for motor vehicles under Title II of the CAA, the USEPA's rules implement a two-phased program for permitting major sources of GHG under Title V permit programs.[7] As Illinois EPA is planning to issue a permit to this source during the second phase of the rules, GHG emissions must be addressed during this CAAPP permitting action.[8] Annual Emission Reports submitted to the Illinois EPA by this source and/or estimated GHG emissions by the Illinois EPA, which detail the source's actual annual emissions of GHG, provide the necessary data to appropriately address emissions of GHG in the Draft CAAPP Permit. The data in these reports clearly show the source is a major source for emissions of GHG.

The new federal rules also require subject Title V sources to comply with any applicable GHG-related requirements that arise from other CAA programs.[9] However, there are currently no emission standards or other regulatory obligations relating to GHG that constitute "applicable requirements" for this source. For this reason, the Draft CAAPP Permit for this source does not contain any substantive requirements for GHG. At the federal level, the only venue that could potentially establish GHG-related requirements at this time is the PSD program. As of January 2, 2011, sources triggering PSD must evaluate GHG emissions resulting from projects that trigger the major source or major modification rules.[10] This source has neither constructed such a project, nor received a permit authorizing such a project, since January 2, 2011, to the present, and therefore has not triggered any GHG-related requirements under the PSD program.

There are no other GHG-related requirements established under the CAA that are applicable to this source at this time. In particular, the mandatory reporting rule for GHG promulgated by USEPA in 2009 [*see generally*, 40 CFR Part 98] is not an applicable requirement and therefore would not be included in the Draft CAAPP Permit for this source. There

are also no GHG-related requirements under the Illinois Environmental Protection Act or contained within Illinois' SIP that apply to the source at this time. Other state laws or regulations in Illinois relating to GHG, including efforts to reduce emissions of GHG under authority other that the Illinois Environmental Protection Act, do not constitute applicable requirements under the CAAPP.

3.12 Incorporation by Reference Discussion

Based on guidance found in White Paper 2 and past petition responses by the Administrator, it is recognized that Title V permit authorities may, within their discretion, incorporate plans by reference. As recognized in the *White Paper 2*, permit authorities can effectively streamline the contents of a Title V permit, avoiding the inevitable clutter of restated text and preventing unnecessary delays where, as here, permit issuance is subject to a decision deadline.[11] However, it is also recognized that the benefits of incorporation of plans must be carefully balanced by a permit authority with its duty to issue permits in a way that is "clear and meaningful" to the Permittee and the public.[12]

The criteria that are mentioned in USEPA Administrator Petition Responses stress the importance of identifying, *with specificity*, the object of the incorporation.[13] The Illinois EPA agrees that such emphasis is generally consistent with USEPA's pronouncements in previous guidance.

For each condition incorporating a plan, the Illinois EPA is also briefly describing the general manner in which the plan applies to the source. Identifying the nature of the source activity, the regulatory requirements or the nature of the equipment associated with the plan is a recommendation of the *White Paper 2*[14]. The Illinois EPA has stopped short of enumerating the actual contents of a plan, as restating them in the permit would plainly defeat the purpose of incorporating the document by reference and be contrary to USEPA guidance on the subject.[15]

Plans may need to be revised from time to time, as occasionally required by circumstance or by underlying rule or permit requirement. Except where expressly precluded by the relevant rules, this Draft CAAPP Permit allows the Permittee to make future changes to a plan without undergoing formal permit revision procedures. This approach will allow flexibility to make required changes to a plan without separately applying for a revised permit and, similarly, will lessen the impacts that could result for the Illinois EPA if every change to a plan's contents required a permitting transaction.[16] Changes to the incorporated plans during the permit term are automatically incorporated into the Draft CAAPP Permit unless the Illinois EPA expresses a written objection.

The Draft CAAPP Permit incorporates by reference the following plans: Episode Action Plan, Chrome Plating Operation and Maintenance Plan, and/or Rotogravure SSM Plan.[17]

3.13 Periodic Monitoring General Discussions

Pursuant to Section 504(c) of the Clean Air Act, a Title V permit must set forth monitoring requirements, commonly referred to as "Periodic Monitoring," to assure compliance with the terms and conditions of the permit. A general discussion of Periodic Monitoring is provided below. The Periodic Monitoring that is proposed for specific operations and emission units and at this source

is discussed in Chapter III of this Statement of Basis. Chapter III provides a narrative discussion of and justification for the elements of Periodic Monitoring that would apply to the different emission units and types of emission units at the facility.

As a general matter, the required content of a CAAPP Permit with respect to such Periodic Monitoring is addressed in Section 39.5(7) of the Illinois Environmental Protection Act.[18] Section 39.5(7)(b) of the Illinois Environmental Protection Act[19] provides that in a CAAPP Permit:

> The Agency shall include among such conditions applicable monitoring, reporting, record keeping and compliance certification requirements, as authorized by paragraphs d, e, and f of this subsection, that the Agency deems necessary to assure compliance with the Clean Air Act, the regulations promulgated thereunder, this Act, and applicable Board regulations. When monitoring, reporting, record keeping and compliance certification requirements are specified within the Clean Air Act, regulations promulgated thereunder, this Act, or applicable regulations, such requirements shall be included within the CAAPP Permit.

Section 39.5(7)(d)(ii) of the Illinois Environmental Protection Act further provides that a CAAPP Permit shall:

> Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), require Periodic Monitoring sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit …

Accordingly, the scope of the Periodic Monitoring that must be included in a CAAPP Permit is not restricted to monitoring requirements that were adopted through rulemaking or imposed through permitting. When applicable regulatory emission standards and control requirements or limits and control requirement in relevant Title 1 permits are not accompanied by compliance procedures, it is necessary for Monitoring for these standards, requirements or limits to be established in a CAAPP Permit.[20, 21] Monitoring requirements must also be established when standards and control requirement are accompanied by compliance procedures but those procedures are not adequate to assure compliance with the applicable standards or requirements.[22, 23] For this purpose, the requirements for Periodic Monitoring in a CAAPP Permit may include requirements for emission testing, emissions monitoring, operational monitoring, non-instrumental monitoring, and recordkeeping for each emission unit or group of similar units at a facility, as required by rule or permit, as appropriate or as needed to assure compliance with the applicable substantive requirements. Various combinations of monitoring measures will be appropriate for different emission units depending on their circumstances, including the substantive emission standards, limitations and control requirements to which they are subject.

What constitutes sufficient Periodic Monitoring for particular emission units, including the timing or frequency associated with such Monitoring requirements, must be determined by the permitting authority based on its knowledge, experience and judgment.[24] For example, as Periodic Monitoring must collect representative data, the timing of Monitoring requirements need not match the averaging time or compliance period of the associated substantive requirements, as set by the relevant regulations and permit provisions. The timing of the various requirements making up the Periodic Monitoring for an emission unit is

something that must be considered when those Monitoring requirements are being established. For this purpose, Periodic Monitoring often consists of requirements that apply on a regular basis, such as routine recordkeeping for the operation of control devices or the implementation of the control practices for an emission unit. For certain units, this regular monitoring may entail "continuous" monitoring of emissions, opacity or key operating parameters of a process or its associated control equipment, with direct measurement and automatic recording of the selected parameter(s). As it is infeasible or impractical to require emissions monitoring for most emission units, instrumental monitoring is more commonly conducted for the operating parameters of an emission unit or its associated control equipment. Monitoring for operating parameter(s) serves to confirm proper operation of equipment, consistent with operation to comply with applicable emission standards and limits. In certain cases, an applicable rule may directly specify that a particular level of an operating parameter be maintained, consistent with the manner in which a unit was being operated during emission testing. Periodic Monitoring may also consist of requirements that apply on a periodic basis, such as inspections to verify the proper functioning of an emission unit and its associated controls.

The Periodic Monitoring for an emission unit may also include measures, such as emission testing, that would only be required once or only upon specific request by the Illinois EPA. These requirements would always be accompanied by Monitoring requirements would apply on a regular basis. When emission testing or other measure is only required upon request by the Illinois EPA, it is included as part of the Periodic Monitoring for an emission unit to facilitate a response by the Illinois EPA to circumstances that were not contemplated when Monitoring was being established, such as the handling of a new material or a new mode of operation. Such Monitoring would also serve to provide further verification of compliance, along with other potentially useful information. As emission testing provides a quantitative determination of compliance, it would also provide a determination of the margin of compliance with the applicable limit(s) and serve to confirm that the Monitoring required for an emission unit on a regular basis is reliable and appropriate. Such testing might also identify specific values of operating parameters of a unit or its associated control equipment that accompany compliance and can be relied upon as part of regular Monitoring.

There are a number of considerations or factors that are or may be relevant when evaluating the need to establish new monitoring requirements as part of the Periodic Monitoring for an emission unit. These factors include: (1) The nature of the emission unit or process and its emissions; (2) The variability in the operation and the emissions of the unit or process over time; (3) The use of add-on air pollution control equipment or other practices to control emissions and comply with the applicable substantive requirement(s); (4) The nature of that control equipment or those control practices and the potential for variability in their effectiveness; (5) The nature of the applicable substantive requirement(s) for which Periodic Monitoring is needed; (6) The nature of the compliance procedures that specifically accompany the applicable requirements; (7) The type of data that would already be available for the unit; (8) The effort needed to comply with the applicable requirements and the expected margin of compliance; (9) The likelihood of a violation of applicable requirements; (10) The nature of the Periodic Monitoring that may be readily implemented for the emission unit; (11) The extent to which such Periodic Monitoring would directly address the applicable requirements; (12) The nature of Periodic Monitoring commonly required for similar emission units at other facilities and in similar circumstances; (13) The interaction or relationship

between the different measures in the Periodic Monitoring for an emission unit; and (14) The feasibility and reasonableness of requiring additional measures in the Periodic Monitoring for an emission unit in light of other relevant considerations.[25]

CHAPTER IV – CHANGES FROM PREVIOUSLY ISSUED CAAPP PERMITS

4.1 Major Changes Summary

This renewal CAAPP draft is presented in a new format. The new format is the result of recommendations by the USEPA, comments made by sources, and interactions with the public.

	Previous CAAPP Permit Layout	*New CAAPP Permit Layout*
Section 1	Source Identification	Source Information
Section 2	List Of Abbreviations/Acronyms	General Permit Requirements
Section 3	Insignificant Activities	Source Requirements
Section 4	Significant Emission Units	Emission Unit Requirements
Section 5	Overall Source Conditions	Title I Requirements
Section 6	Emission Control Programs	Insignificant Activities
Section 7	Unit Specific Conditions	Other Requirements
Section 8	General Permit Conditions	State Only Requirements
Section 9	Standard Permit Conditions	---
Section 10	Attachments	Attachments

Endnotes

[1] The federal PSD program, 40 CFR 52.21, applies in Illinois. The Illinois EPA administers PSD permitting for major projects in Illinois pursuant to a delegation agreement with USEPA.

[2] Illinois has a state nonattainment NSR program, pursuant to state rules, Major Stationary Sources Construction and Modification ("MSSCM"), 35 IAC Part 203, which have been approved by USEPA as part of the State Implementation Plan for Illinois.

[3] The incorporation, or carry-over, of terms or conditions from previous Title I permits into Title V permits typically does not occur on a wholesale basis. Recognizing that construction permits may frequently contain obsolete or extraneous terms and conditions, USEPA has emphasized that only "environmentally significant terms" from previous preconstruction permits must be carried over into Title V permits. See, White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995. Therefore, certain T1 terms and conditions have not been carried over from these SIP approved permits for reasons that are explained below.

[4] During startup, shutdown and malfunction, a source was instead required to minimize emissions of subject emission units in a manner consistent with good air pollution control practice. A startup shutdown and malfunction plan must be maintained by a source setting forth how it operate emission units to minimize emissions during events, ideally so that they are not accompanied by any violations of the applicable standards. Finally, the term "malfunction" is also narrowly defined under the NESHAP. Malfunctions only include events that are sudden, infrequent and not reasonably preventable. Events that are caused, even in part, by poor maintenance or careless operation are not malfunctions for purposes of any SSM exemption.

[5] The *Sierra Club* decision has created concern for the sources that are subject to NESHAP standards and have relied upon the SSM Exemption. For some source categories, the technological capability to maintain compliance with numerical NESHAP standards during SSM events may not currently exist. Numerical standards were also adopted without critical consideration necessarily having been given to whether those standards could reasonably and appropriately be met during startup, shutdown or malfunction events. Consequently, the vacatur of the SSM Exemption creates uncertainty and concern about how to apply these NESHAP standards pertaining to such events.

[6] The USEPA guidance contains a caveat. USEPA recognizes that the source category-specific SSM exemption provisions may be challenged separately. As such, the analysis in its guidance could be subject to change. USEPA indicates that it intends to evaluate which source category-specific SSM exemption provisions should be revised. The Illinois EPA is not aware of any such specific challenges that have been made to source category-specific SSM exemption provisions in the NESHAP.

[7] The new rules apply the first phase of permitting to sources already subject to Title V by virtue of their conventional, non-GHG pollutants. As noted above, these sources are expected to address GHG in their permitting applications and to comply with any substantive requirements for GHG that have been established through other CAA programs such as PSD. The second phase of permitting that begins July 1, 2011, essentially applies the same requirements to sources who will become subject to Title V based on their GHG emissions alone (i.e., existing or newly constructed sources with a potential to emit of equal to or greater than 100,000 tons per year of CO2*e* and 100 tons per year of GHG on a mass basis).

[8] USEPA has stated that the first phase of its new rules requires existing Title V sources to address GHG in their Title V applications by citing to any pollutants for which the Title V source is major and to all regulated air pollutants. *See,* PSD and Title V Permitting Guidance for Greenhouse Gases, prepared by the Office of Air Quality Planning and Standards, page 51 (November 2010).

[9] *See generally,* PSD and Title V Permitting Guidance for GHG at pages 53-56.

[10] A major source subject to PSD based on potential emissions of a non-GHG pollutant and potential emissions of GHG equal or greater than 75,000 tons per year of CO2e is required to address GHG emissions in evaluating control options and associated monitoring, reporting, etc, for any construction of a new major source or a major modification of an existing major source.

[11] Among other things, USEPA observed that the stream-lining benefits can consist of "reduced cost and administrative complexity, and continued compliance flexibility…". *White Paper 2,* page 41.

[12] See, In the Matter of Tesoro Refining and Marketing, Petition No. IX-2004-6, Order Denying in Part and Granting in Part Petition for Objection to Permit, at page 8 (March 15, 2005); see also, White Paper 2 at page 39 ("reference must be detailed enough that the manner in which any referenced materials applies to a facility is clear and is not reasonably subject to misinterpretation").

[13] The Order provides that permit authorities must ensure the following: "(1) referenced documents be specifically identified; (2) descriptive information such as the title or number of the document and the date of the document be included so that there is no ambiguity as to which version of the document is being referenced; and (3) citations, cross references, and incorporations by reference are detailed enough that the manner in which any referenced material applies to a facility is clear and is not reasonably subject to misinterpretation." See, Petition Response at page 43, citing White Paper 2 at page 37.

[14] See, White Paper 2 at page 39.

[15] Nothing in USEPA guidance, including the White Paper 2 or previous orders responding to public petitions, supports the notion that permit authorities incorporating a document by reference must also restate contents of a given plan in the body of the Title V permit. Such an interpretation contradicts USEPA recognition that permit authorities need not restate or recite an incorporated document so long as the document is sufficiently described. White Paper 2 at page 39; see also, In the matter of Consolidated Edison Co. of New York, Inc., 74th St. Station, Petition No. II-2001-02, Order Granting in Part and Denying in Part Petition for Objection to Permit at page 16 (February 19, 2003).

[16] This approach is consistent with USEPA guidance, which has previously embraced a similar approach to certain SSM plans. *See,* Letter and Enclosures, dated May 20, 1999, from John Seitz, Director of Office of Air Quality Planning and Standards, to Robert Hodanbosi and Charles Lagges, STAPPA/ALAPCO, pages 9-10 of Enclosure B.

[17] Each incorporated plan addressed by this Section of the Statement of Basis is part of the source's permit file. As such, these plans are available to any person interested in viewing the contents of a given plan may do so at the public repository during the comment period or, alternatively, may request a copy of the same from the Illinois EPA under the Freedom of Information Act. See also 71 FR 20447.

[18] The provisions of the Act for Periodic Monitoring in CAAPP permits reflect parallel requirements in the federal guidelines for State Operating Permit Programs, 40 CFR 70.6(a)(3)(i)(A), (a)(3)(i)(B), and (c)(1).

[19] Section 39.5(7)(p)(i) of the Act also provides that a CAAPP permit shall contain "Compliance certification, testing, monitoring, reporting and record keeping requirements sufficient to assure compliance with the terms and conditions of the permit."

[20] The classic example of regulatory standards for which Periodic Monitoring requirements must be established in a CAAPP permit are state emission standards that

pre-date the 1990 Clean Air Act Amendments that were adopted without any associated compliance procedures. Periodic Monitoring must also be established in a CAAPP permit when standards and limits are accompanied by compliance procedures but those procedures are determined to be inadequate to assure compliance with the applicable standards or limits.

[21] Another example of emission standards for which requirements must be established as part of Periodic Monitoring is certain NSPS standards that require initial performance testing but do not require periodic testing or other measures to address compliance with the applicable limits on a continuing basis.

[22] The need to establish Monitoring requirements as part of Periodic Monitoring when existing compliance procedures are determined to be inadequate, as well as when they are absent, was confirmed by the federal appeals court in Sierra Club v. Environmental Protection Agency, 536 f. 3d 673, 383 U.S. App. D.C. 109.

[23] The need to establish Monitoring requirements as part of Periodic Monitoring is also confirmed in USEPA's Petition Response. USEPA explains that "…if there is periodic monitoring in the applicable requirements, but that monitoring is not sufficient to assure compliance with permit terms and conditions, permitting authorities must supplement monitoring to assure such compliance." Petition Response, page 6.

[24] The test for the adequacy of "Periodic Monitoring" is a context-specific determination, particularly whether the provisions in a Title V permit reasonably address compliance with relevant substantive permit conditions. 40 CFR 70.6(c)(1); *see also* 40 CFR 70.6(a)(3)(i)(B); *see also, In the Matter of CITGO Refinery and Chemicals Company L.P.,* Petition VI-2007-01 (May 28, 2009); *see also, In the Matter of Waste Management of LA. L.L.C. Woodside Sanitary Landfill & Recycling Center, Walker, Livingston Parish, Louisiana,* Petition VI-2009-01 (May 27, 2010); *see also, In the Matter of Wisconsin Public Service Corporation's JP Pulliam Power Plant,* Petition V-2009-01 (June 28, 2010).

[25] A number of these factors are specifically listed by USEPA in its Petition Response. USEPA also observes that the specific factors that it identifies in its Petition Response with respect to Periodic Monitoring provide "…the permitting authority with a starting point for its analysis of the adequacy of the monitoring; the permitting authority also may consider other site-specific factors." Petition Response, page 7.